

Abstract

A LCD is adapted to reduce the number of data lines and drive circuits. The LCD can be driven in a dot inversion manner, using a data driver employing column inversion. A gate driver sequentially supplies first and second gate signals to gate lines. First and second switching parts are located in an i^{th} horizontal line and supply video signals from data lines to LC cells by the control of an i^{th} gate line. Third switching parts supply video signals to the cells located in the horizontal line, and are connected to the same data line as the second switching part, and are controlled by the i^{th} and an $i-1^{\text{th}}$ gate lines. Fourth switching parts supply video signals to the cells located in the horizontal line and are connected to the same data line as the first switching part, and are controlled by the i^{th} and $i-1^{\text{th}}$ gate lines.